10/676266

Hit List

First Hit Your wildcard search against 10000 terms has yielded the results below.

Your result set for the last L# is incomplete.

The probable cause is use of unlimited truncation. Revise your search strategy to use limited truncation.

Clear | Generate Collection | Print | Fwd Refs | Bkwd Refs | Generate OACS

Search Results - Record(s) 1 through 9 of 9 returned.

☐ 1. Document ID: US 20040133318 A1

L6: Entry 1 of 9 File: PGPB Jul 8, 2004

PGPUB-DOCUMENT-NUMBER: 20040133318
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20040133318 A1

TITLE: Abnormal oil pressure reduction determination device for vehicle transmission

PUBLICATION-DATE: July 8, 2004

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY
Kang, Jihoon	Fuji-shi		JP
Kawamura, Yasutaka	Fuji-shi		JP
Shimanaka, Shigeki	Fuji-shi		JP
Tanaka, Hiroyasu	Fuji-shi		JP
Park, Donggyun	Fuji-shi		JP
Okahara, Hirofumi	Fuji-shi		JP

US-CL-CURRENT: 701/29

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw De

☐ 2. Document ID: US 20030158646 A1

L6: Entry 2 of 9 File: PGPB Aug 21, 2003

PGPUB-DOCUMENT-NUMBER: 20030158646
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20030158646 A1

TITLE: Shift control apparatus for continuously variable transmission and shift control method therefor

PUBLICATION-DATE: August 21, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY
Nishida, Masayuki	Tokyo		JP
Nakayama, Jun	Tokyo		JP
Yamamoto, Mitsuo	Tokyo		JP

US-CL-CURRENT: 701/51; 701/55

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw. De

---

☐ 3. Document ID: US 20020183911 A1

L6: Entry 3 of 9 File: PGPB Dec 5, 2002

PGPUB-DOCUMENT-NUMBER: 20020183911
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20020183911 A1

TITLE: Integrated control system for vehicle

PUBLICATION-DATE: December 5, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY
Tashiro, Tsutomu	Nagoya-city		JP
Miyamoto, Noboru	Fukuoka-city		JP
Fujii, Takehito	Anjo-city		JP

US-CL-CURRENT: 701/48; 701/53, 701/71

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw. De

---

☐ 4. Document ID: US 6810314 B2

L6: Entry 4 of 9 File: USPT Oct 26, 2004

US-PAT-NO: 6810314
DOCUMENT-IDENTIFIER: US 6810314 B2

TITLE: Integrated control system for vehicle

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw. De

---

☐ 5. Document ID: US 6691012 B2

L6: Entry 5 of 9 File: USPT Feb 10, 2004

US-PAT-NO: 6691012
DOCUMENT-IDENTIFIER: US 6691012 B2

TITLE: Shift control apparatus for continuously variable transmission and shift control method therefor

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWMC | Draw De

---

☐ 6. Document ID: US 6006150 A

L6: Entry 6 of 9 File: USPT Dec 21, 1999

US-PAT-NO: 6006150
DOCUMENT-IDENTIFIER: US 6006150 A

TITLE: Communications device for control device

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWMC | Draw De

---

☐ 7. Document ID: US 5033290 A

L6: Entry 7 of 9 File: USPT Jul 23, 1991

US-PAT-NO: 5033290
DOCUMENT-IDENTIFIER: US 5033290 A
** See image for Certificate of Correction **

TITLE: Method of detecting failure of a valve timing changeover control system of an internal combustion engine

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWMC | Draw De

---

☐ 8. Document ID: JP 2004125104 A

L6: Entry 8 of 9 File: JPAB Apr 22, 2004

PUB-NO: JP02004125104A
DOCUMENT-IDENTIFIER: JP 2004125104 A
TITLE: APPARATUS FOR JUDGING ABNORMAL DECREASE IN OIL PRESSURE OF TRANSMISSION FOR VEHICLE

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWMC | Draw De

---

☐ 9. Document ID: JP 11082677 A

L6: Entry 9 of 9 File: JPAB Mar 26, 1999

PUB-NO: JP411082677A
DOCUMENT-IDENTIFIER: JP 11082677 A
TITLE: HYDROMECHANICAL TRANSMISSION

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWMC | Draw De

Clear | Generate Collection | Print | Fwd Refs | Bkwd Refs | Generate OACS

Terms	Documents
L4 and (exceed$ with (threshold$ or referen$))	9

Display Format: - Change Format

Previous Page Next Page Go to Doc#

L6: Entry 2 of 9 File: PGPB Aug 21, 2003

DOCUMENT-IDENTIFIER: US 20030158646 A1
TITLE: Shift control apparatus for continuously variable transmission and shift control method therefor

Summary of Invention Paragraph:
[0007] In the first method, the oil pressure supplied in the primary oil chamber is regulated by the oil pressure control valve for a shift control, and the oil pressure in the primary oil chamber is fed back to a pilot port of the oil pressure control valve. Therefore, when a torque is unexpectedly inputted to the transmission from the wheels due to a change of road surface conditions, for example, when the vehicle runs on a rough road or a road with other friction coefficients, the oil pressure control valve is actuated by an oil pressure feedback function from the pilot port, and the hydraulic oil is caused to flow out or in the primary oil chamber. Accordingly, the speed ratio become unstable. To solve this problem, an orifice or a value is provided in a hydraulic circuit. However, providing the value deteriorates the shift response at a normal time and hence lowers an upper limit of a shifting speed.

Detail Description Paragraph:
[0064] The basic current setting unit 48 calculates the variation rate DPp0 of the target primary pressure Pp0 and sets the basic current I0 according to the variation rate DPp0. As shown in FIG. 4C, even in case either the variation rate DPp0 increases or decreases, in case the variation rate DPp0 stays within a predetermined threshold 2Da, the basic current I0 is set at the neutral current In. Then, in case the variation rate DPp0 increases to reach or exceed the threshold, the basic current I0 is set to a current Ipu which is lower than the neutral current In, whereby the inlet port 26a of the shift control valve 25 opens to allow the hydraulic oil to flow into the primary cylinder 16, and the speed ratio changes to the upshift side. On the contrary to this, in case the variation rate DPp0 decreases to lower than the threshold, the basic current is set to a current Ipd which is higher than the neutral current In, and the speed ratio changes to a downshift side. In either of the cases, the currents Ipu, Ipd change with hysteresises.

Detail Description Paragraph:
[0066] A flag FLGDi setting unit 52 shown in FIG. 2 sets a flag depending upon whether or not a speed ratio deviation .DELTA.i exceeds a predetermined threshold D.DELTA.i, and a flag FLGDp setting unit 53 sets the flag depending upon whether or not the pressure deviation .DELTA.Pp exceeds a predetermined threshold D.DELTA.Pp. Signals from the respective flag setting units 52, 53 are sent to a current renewing unit 54. Then, in case the flags are set at the respective flag setting units 52, 53 on condition that an absolute valve of the variation rate DPp0 of the target primary pressure Pp0 is smaller than a threshold Da, the setted basic current I0 is supplied to the electromagnetic coil 25c as it is without being renewed or with no feedback control of the primary pressure Pp being carried out. On the contrary to this, in other cases than the case described above, the current values I0 are renewed and the primary pressure Pp is fed.

Detail Description Paragraph:
[0069] FIG. 7 is an operating characteristics chart of the relief valve 27 which

functions as the oil pressure limiting unit, which shows that the primary pressure Pp continues to increase correspondingly to an increase in inflow pressure until an inflow pressure flowing into the inlet port 28a exceeds an upper limit value Pplimit. Then, when a pressure exceeding a predetermined upper limit value Pplimit flows into the inlet port 28a the inlet port 28a is closed by a pilot pressure to prevent an increase in the primary pressure Pp, whereby in case an actual primary pressure becomes higher than a predetermined primary pressure, the primary pressure is lowered to a proper value by the relief valve 27 as an oil pressure limiter. Consequently, there is no risk that an abnormally high pressure acts on the primary oil passage 23, the circuit being thereby protected. Furthermore, even in case the shift control valve 25 fails to stay on the open side by selecting a set value appropriately, the pulley ratio can be maintained at an intermediate ratio between the overdrive and the low.

Detail Description Paragraph:
[0073] In case the absolute value of the variation rate is determined as exceeding the threshold Da in step S2, in step S4, whether or not the variation rate DPp0 is larger than the threshold Da is determined. In case the variation rate is determined as being larger than the threshold, then step S5 is implemented to set the basic current I0 to Ipu, as shown in FIG. 4C, so as to increase the target primary pressure Pp0. On the contrary, in case the variation rate DPp0 is determined as being smaller than the threshold Da, step S6 is then implemented to set the basic current I0 to Ipd, as shown in FIG. 4c, so as to decrease the target primary pressure Pp0.

Previous Doc Next Doc Go to Doc#

First Hit Previous Doc Next Doc Go to Doc#

Generate Collection Print

L6: Entry 2 of 9 File: PGPB Aug 21, 2003

PGPUB-DOCUMENT-NUMBER: 20030158646
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20030158646 A1

TITLE: Shift control apparatus for continuously variable transmission and shift control method therefor

PUBLICATION-DATE: August 21, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY
Nishida, Masayuki	Tokyo		JP
Nakayama, Jun	Tokyo		JP
Yamamoto, Mitsuo	Tokyo		JP

APPL-NO: 10/367720 [PALM]
DATE FILED: February 19, 2003

FOREIGN-APPL-PRIORITY-DATA:

COUNTRY	APPL-NO	DOC-ID	APPL-DATE
JP	P. 2002-043520	2002JP-P. 2002-043520	February 20, 2002

INT-CL-PUBLISHED: [07] G06 F 17/00

US-CL-PUBLISHED: 701/51; 701/55
US-CL-CURRENT: 701/51; 701/55

REPRESENTATIVE-FIGURES: 2

ABSTRACT:

A shift control apparatus for a continuously variable transmission has a target primary pressure setting unit provided a target primary pressure according to a speed ratio deviation between an actual speed ratio and a target speed ratio; a shift control valve for regulating flow rate of hydraulic oil supplied to the primary cylinder by changing an opening area of the shift control valve according to current supplied to an electromagnetic coil; a primary pressure detecting unit; and a control unit for controlling the speed ratio by correcting a basic current set to be based upon the target primary pressure and supplied to the electromagnetic coil by feeding back the primary pressure detected by the primary pressure detecting unit, so as to have an excellent shift feeling, being able to decrease a fuel consumption by reducing the load of a pump and by quickly shifting to an optimum speed ratio.

Previous Doc Next Doc Go to Doc#

L1: Entry 1 of 1 File: USOC May 28, 1957

DOCUMENT-IDENTIFIER: US 2793803 A
TITLE: Controlling device for compressors

OCR Scanned Text (2):
2 @ 7 9 3 2 @ O @ 3 Utiited States Patent Office atented May 28, 1957 2,793,803 CONTROLLING DEVICE FOR COMPRESSORS 6 Paul A. Yerger, Bloomsbury, N. J., assignor to IngersollRand Company, New York, N. Y., a corporation of New Jersey Application August 12, 1954, Serial No. 449,406 10 6 Claims. (Cl. 230-6) This invention relates to compressors, anci more par- 15 tictilarly to an improved controlling device for com- pressors having force-feed lubrication. It is coinmon practice to control the output of a com- pressor according to the variation in discharge pressure by means of so-called dual-control, as, for example, 20 "constan t-speed" control and alitomatic "start-stop," con- trol in a single unit, in which is also provided means for selectin g the type of control to be tised in accordance with the demand for air. In many units of this type a three-way valve is used 25 for controlling the op-.ration of the compressor-iinload- ing valves and is actuated by a pressure-operated valve Nvhich acts responsively to changes in discharge pressure. It is also used in conjunction with a pneumatically or electrica lly-actuated time-delay device to insure an un- 30 loaded condition of the compressor until the motor attains normal speed. As heretofore constructed, none of these dual-control units having an electric time-delay switch includes safety devices for emergency shut-down of a compressor with 35 force- feed lubrication in the event of lubricating Oil pressur e faflure or an abnormal thermal coridition of the fluid discharged by the compressor. Therefo re, an object of my inliention is to include ;n the control circuit of a compressor having force-feed 40 lubricati on, means for preventing damage to said com- pressor which may be caused by the failure of lubricating oil pressure or resultidg from excessive discharge-fluid temperat ure. Other objects will be pointed out in the following 45 descripti on of the accompanying drawing, which illus- trates a preferred embodiment of the invention and is a side elevation of th.- compressor and an electric dual- control circuit therefor, shown diagrarnmatically and partly broken away. 50 Referrin g to the drawing, th-- invention is shown as applied to a single stage compressor 20, although it could be applied to any type of compressor. The compressor has a gear-driven oil pump 21 and is driven by an electric motor 22 by means of a belt 24 and pulleys 26 and 28 on 55 the motor and the compressor, respectively. The motor 22 receives its power through a three-phase power line 29 having leads 1, 2 and 3, and air enters the cylinder 30 of the compressor thro-Ligh an intake port 32 and is dis- charged under pressure through a pipe 34 to a receiver 36. 60 The control circuit, designated 37, for the compressor includes a normally-closed pressure-actuated switch 38, which is responsive to variations of air pressure in the receiver 36 to control a solenoid-operated three-way valve 65 40 for operating free-air unloaders, only the covers 42 of which are shown, to unload the compressor 20. Directly associat ed with the three-way valve 40 is a time-delay relay 44, which delays the loading of the compressor 20 upon startin.@ and is actuated simultaneously with a 70 solenoid - operated line starter switch assembly 46 in the line 29 for,controlling the motor 22. Completing the 2 circuit is a manually operated selector switch 48 for determining the type of control to be used. In accordance with the practice of the invention, a mechanically- latched relay 50 acting as a circuit breaker is inserted

in the starter switch circuit for shutting down the motor 22, w-henever eneigized by an oil pressure switch 52 which acts responsively to a failure of the lubricating oil pressure or by a thermal switch 54 which acts responsively to an abnormal teinperature condition in the fluid discharged by the compressor. The pressure switch 38 is normally closed and is known commercially as a "Mercoid" switch. It is connected to the receiver 36 by piping 56, and opens the control circuit at a predetermined maximum diseharge pressure and closes it at a predetermined minimum pressure, thereby acting as a pilot switch for the control circuit 37. Piping 56 conveys pressure fluid from the receiver 36 to the valve 40 and is threaded connected to the body 58 thereof. It opens into an inlet chamber 60 in the lower portion of the body, which, in addition, has a discharge chamber 62 in its upper portion and a transfer chainber 64 between the chambers 60 and 62. The discharge chamber 62 has an exhaust port 66 communicating said chamber with the atmosphere. Threadedly connected to the body 58 is piping 68 for conveying pressure fluid from the transfer chamber 64 to the free-air unloader covers 42 on eyader 30. Connecting the inlet chamber 60 and the transfer chamber 64 is a port 70 having a beveled valve seat 72 at its juncture with the chamber 60. Likewise, the discharge chamber 62 and the transfer chamber 64 are connected by a port 73 having a valve seat 74 at its juncture with the chamber 62. The ports 70 and 73 are alternately opened and closed by a two-headed valve 76 which is actuated by a solenoid 78, the core 79 of which interlockingly engag&s an end of a lever 80, which is pivotally connected to:-the body 58 at its other end and to a stem 82 of the valve 76 at an interinediate point. Springs 84 and 85 are positioned in ;the discharge chamber 62 and in the inlet chamber 60 between the upper and lower heads of the valve 76 and two caps 86 and 87 screwed into the body 58, respectively. The resistance of the springs 84 and 85 and the weight of the solenoid core 79 and the lever 80 are such that, when the solenoid 78 is deenergized, the valve 76 is held in position to cover the port 73 and to uncover the port 70, thereby admitting receiver pressure to the free-air unloaders through the piping 68. When the solenoid 78 is energized, the valve 76 is shifted thereby to its other limiting position and cuts off the receiver pressure to the free-air unloaders and establishes communication between the chambers 64 and 62 for exhausting the fluid from the compressor unloaders. Electrically conneeted to the solenoid 78 is the tiniedelay relay 44. The relay 44 consists of a casin.- 90, which houses a coill 92 encircling a core 94. The core 94 carries a piston 96 a@t its lower end to reciprocate in a cylinder 98 at ithe lower end of the casing 90. In the side wall of the cylinder 98 is ia restricted passage 102 c-onununicating with the opposite ends of the cylinder 98. The pisto.1 96 contains ia ball check valve. 104 which serves to prevent flo@v of ia fluid, such as oil, through the piston 96 in the downward direction but allows relatively f.-ee flow in the upward direction. This cylinder construrtion constilutes a well known "dash-pot," which is used to retard the upward motion of the core 94 upon energizaticn of the coil 92 for closing contacts 106 by means of ia switch a= 108 pivotary connected to the, tipper end of the. core 94. The starter switch assembly 46 is of conventional constiaction !and comprises a m-anually-operable switch 110 and an electrically operated switch 112. The switch 112

Previous Doc Next Doc Go to Doc#

First Hit Previous Doc Next Doc Go to Doc#

End of Result Set

Generate Collection Print

L6: Entry 9 of 9 File: JPAB Mar 26, 1999

PUB-NO: JP411082677A
DOCUMENT-IDENTIFIER: JP 11082677 A
TITLE: HYDROMECHANICAL TRANSMISSION

PUBN-DATE: March 26, 1999

INVENTOR-INFORMATION:
NAME COUNTRY
KINOUE, KENJI

ASSIGNEE-INFORMATION:
NAME COUNTRY
DAIKIN IND LTD

APPL-NO: JP09250591
APPL-DATE: September 16, 1997

INT-CL (IPC): F16 H 47/04; F16 H 61/00; F16 H 61/40

ABSTRACT:

PROBLEM TO BE SOLVED: To prevent an oil pressure from increasing abnormally within a hydrostatic transmission, by cutting off connection of a first clutch mechanism when the operating amount of a foot brake or a parking brake is detected to be larger than a reference value while a vehicle is driving in a low-speed range mode or the vehicle is stopped.

SOLUTION: A clutch control means 73 cuts off connection of a first clutch mechanism 10 when the operating amount of a brake in a low-speed range mode is detected exceeding a reference value by a parking brake operating amount detecting means 72, and permits an output shaft of a hydraulic motor to rotate. Whether the hydraulic motor is rotating or not is detected by a hydraulic motor rotation detecting means 74 and, in response to this detection, an angle of a swash plate 5a of the hydraulic motor is controlled by a hydraulic motor swash plate angle control means 75 to stop the rotation of the hydraulic motor. An abnormal increase of an oil pressure within a hydrostatic transmission is eliminated, and breakage and wear of mechanical components can be prevented.

Previous Doc Next Doc Go to Doc#

First Hit Previous Doc Next Doc Go to Doc#

End of Result Set

Generate Collection Print

L6: Entry 9 of 9 File: JPAB Mar 26, 1999

DOCUMENT-IDENTIFIER: JP 11082677 A
TITLE: HYDROMECHANICAL TRANSMISSION

Abstract Text (1):
PROBLEM TO BE SOLVED: To prevent an oil pressure from increasing abnormally within a hydrostatic transmission, by cutting off connection of a first clutch mechanism when the operating amount of a foot brake or a parking brake is detected to be larger than a reference value while a vehicle is driving in a low-speed range mode or the vehicle is stopped.

Abstract Text (2):
SOLUTION: A clutch control means 73 cuts off connection of a first clutch mechanism 10 when the operating amount of a brake in a low-speed range mode is detected exceeding a reference value by a parking brake operating amount detecting means 72, and permits an output shaft of a hydraulic motor to rotate. Whether the hydraulic motor is rotating or not is detected by a hydraulic motor rotation detecting means 74 and, in response to this detection, an angle of a swash plate 5a of the hydraulic motor is controlled by a hydraulic motor swash plate angle control means 75 to stop the rotation of the hydraulic motor. An abnormal increase of an oil pressure within a hydrostatic transmission is eliminated, and breakage and wear of mechanical components can be prevented.

Previous Doc Next Doc Go to Doc#

L6: Entry 7 of 9 File: USPT Jul 23, 1991

DOCUMENT-IDENTIFIER: US 5033290 A
** See image for Certificate of Correction **
TITLE: Method of detecting failure of a valve timing changeover control system of an internal combustion engine

Detailed Description Text (12):
Further electrically connected to the ECU 5 are a vehicle speed sensor 17, a gear position sensor 18 for detecting the shift lever position of a transmission, and an oil pressure sensor 19 for detecting oil pressure in an oil feeding passage (43 in FIG. 2b), referred to hereinafter, of the engine 1. Signals from these sensors are supplied to the ECU 5.

Detailed Description Text (31):
Specifically, it is determined that a failsafe operation should be carried out, if, for example, there is detected an abnormality in the output from any of the intake pipe absolute pressure (P.sub.BA) sensor 8, the cylinder-discriminating (CYL) sensor 13, the engine rotational speed (TDC) sensor 12, the engine coolant temperature sensor 11, and the vehicle speed sensor 17, an abnormality in the outputting of a control signal for ignition timing or in the outputting of driving signals for the fuel injection valves, an abnormality in the amount of electric current supplied to the electromagnetic valve 22 for the valve timing control, or an abnormality that a normal change has not been detected in oil pressure at the selector valve 23 responsive to opening and closing of the electromagnetic valve 22 for the valve timing control by an oil pressure switch of the oil pressure sensor 19, over a predetermined time period. Incidentally, when one of the CYL sensor and the TDC sensor is abnormal, the other is used in place thereof.

Detailed Description Text (50):
If the answer to the question of the step S75 is affirmative (Yes), it is determined that a predetermined time period has elapsed after it was detected that the absolute value of difference between the ratio G.sub.AIRC and the ideal value 1 has exceeded the tolerance value, and the program proceeds to a step S77, where the valve timing is regarded as abnormal, and at a step S78, operations, such as lighting of an alarm lamp and the failsafe operation described above with reference to FIG. 4, are carried out, followed by terminating the present program.

Detailed Description Text (63):
In addition, as described hereinbefore, each manifold absolute pressure sensor 55 shown in FIG. 8 detects the absolute pressure P.sub.BAM (hereinafter referred to as "the intake manifold absolute pressure") within the intake manifold 2' for its corresponding cylinder in such a manner that the detected value of the intake manifold absolute pressure P.sub.BAM for the cylinder is free from influence by the absolute pressure for the other cylinders. This is because abnormality in the changeover of the valve timing changeover mechanism occurs in one or more component parts thereof corresponding to a single cylinder (e.g. the changeover pins 36, 37 being incapable of sliding in the rocker arms 31, 33), and hence it is possible to positively detect a change in the absolute pressure due to failure of the valve timing changeover mechanism by detecting the intake manifold absolute pressure P.sub.BAM belonging to each cylinder.

First Hit Previous Doc Next Doc Go to Doc#

Generate Collection Print

L6: Entry 2 of 9 File: PGPB Aug 21, 2003

PGPUB-DOCUMENT-NUMBER: 20030158646
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20030158646 A1

TITLE: Shift control apparatus for continuously variable transmission and shift control method therefor

PUBLICATION-DATE: August 21, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY
Nishida, Masayuki	Tokyo		JP
Nakayama, Jun	Tokyo		JP
Yamamoto, Mitsuo	Tokyo		JP

APPL-NO: 10/367720 [PALM]
DATE FILED: February 19, 2003

FOREIGN-APPL-PRIORITY-DATA:

COUNTRY	APPL-NO	DOC-ID	APPL-DATE
JP	P. 2002-043520	2002JP-P. 2002-043520	February 20, 2002

INT-CL-PUBLISHED: [07] G06 F 17/00

US-CL-PUBLISHED: 701/51; 701/55
US-CL-CURRENT: 701/51; 701/55

REPRESENTATIVE-FIGURES: 2

ABSTRACT:

A shift control apparatus for a continuously variable transmission has a target primary pressure setting unit provided a target primary pressure according to a speed ratio deviation between an actual speed ratio and a target speed ratio; a shift control valve for regulating flow rate of hydraulic oil supplied to the primary cylinder by changing an opening area of the shift control valve according to current supplied to an electromagnetic coil; a primary pressure detecting unit; and a control unit for controlling the speed ratio by correcting a basic current set to be based upon the target primary pressure and supplied to the electromagnetic coil by feeding back the primary pressure detected by the primary pressure detecting unit, so as to have an excellent shift feeling, being able to decrease a fuel consumption by reducing the load of a pump and by quickly shifting to an optimum speed ratio.

Previous Doc Next Doc Go to Doc#

L6: Entry 3 of 9 File: PGPB Dec 5, 2002

DOCUMENT-IDENTIFIER: US 20020183911 A1
TITLE: Integrated control system for vehicle

Summary of Invention Paragraph:
[0007] When a driver changes a shift lever from the drive D range to the neutral N range in a running state of the vehicle, for example, it is not until transmission of an operation command of the shift lever to the highest level hierarchical layer that power transmission between the engine and the drive axle is turned off in accordance with the command coming from the highest level hierarchical layer. Thus, an operation cannot be taken quick in response to the operation carried out by the driver. In addition, in a vehicle equipped with a CVT (continuously variable transmission) an abnormality of an oil pressure mechanism for changing the transmission gear ratio may result in a circumstance in which the belt inadvertently slips. This is because, in this case, the highest level hierarchical layer issues a command to a lower level hierarchical layer in accordance with the abnormal condition so that a quick response operation can no longer be taken.

Detail Description Paragraph:
[0077] The processing begins with step S601 to determine whether the brake control module should secede from the hierarchical layer. Specifically, a wheel lock state is determined to exist when a brake torque exceeds a threshold value set in advance and a difference in speed between the front wheels and the rear wheels exceeds another threshold value also set in advance.

Detail Description Paragraph:
[0079] If the determination result provided at step S601 is NO indicating that the brake control module should not secede from the hierarchical layer because no wheel lock state exists, on the other hand, the processing moves to step S603 to determine whether the brake control module should secede from the hierarchical layer due to a wheel spin state. Specifically, the wheel spin state is determined to exist when the brake torque set in advance in the brake control module is equal to or smaller than a threshold value set in advance, a difference in speeds between the front wheels and the rear wheels exceeds another threshold value also set in advance and the wheel lock state is determined not to exist.

L6: Entry 6 of 9 File: USPT Dec 21, 1999

US-PAT-NO: 6006150
DOCUMENT-IDENTIFIER: US 6006150 A

TITLE: Communications device for control device

DATE-ISSUED: December 21, 1999

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Ueda; Yoshiaki	Fuji			JP

ASSIGNEE-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY	TYPE CODE
Jatco Corporation				JP	03

APPL-NO: 08/762738 [PALM]
DATE FILED: December 10, 1996

FOREIGN-APPL-PRIORITY-DATA:

COUNTRY	APPL-NO	APPL-DATE
JP	7-346027	December 11, 1995

INT-CL-ISSUED: [06] H04 J 3/02

US-CL-ISSUED: 701/53; 701/51, 701/58, 701/65, 180/336, 477/78, 370/85
US-CL-CURRENT: 701/53; 180/336, 340/3.2, 477/78, 701/51, 701/58, 701/65

FIELD-OF-CLASSIFICATION-SEARCH: 701/51, 701/53, 701/55, 701/58, 701/62, 701/65, 74/473.1, 74/433.21, 180/336, 180/337, 477/34, 477/78
See application file for complete search history.

PRIOR-ART-DISCLOSED:

U.S. PATENT DOCUMENTS

Search Selected Search ALL Clear

	PAT-NO	ISSUE-DATE	PATENTEE-NAME	US-CL
☐	3828130	August 1974	Yamaguchi	178/69.5R
☐	4706245	November 1987	Suzuki et al.	370/85
☐	4788890	December 1988	Anderson	74/851
☐	4821262	April 1989	Futami	370/85

☐	4996965	March 1991	Onari et al.	123/492
☐	5052246	October 1991	Yamaguchi	74/866
☐	5138873	August 1992	Amano	73/118.1
☐	5454001	September 1995	Nagatani et al.	371/68.2

ART-UNIT: 361

PRIMARY-EXAMINER: Louis-Jacques; Jacques H.

ASSISTANT-EXAMINER: Donnelly; Arthur D.

ATTY-AGENT-FIRM: Rossi & Associates

ABSTRACT:

A communications device for a control device is provided which includes a signal line communicating with the control device, and a transmitter that transmits a pulse signal including digital information to the control device through the signal line. The transmitter varies a duty ratio of the pulse signal so that the duty ratio corresponds to the logical value 1/0 of the digital information. The control device reads a binary signal from the signal line at a predetermined frequency based on a first processing program, and processes the binary signal according to the first processing program. The control device detects passage of a leading edge of the pulse signal from a change in the received binary signal, and reproduces the digital information based on the binary signal read at a time when a first predetermined time elapses after the passage of the leading edge of the pulse signal is detected. The first predetermined time is set to be intermediate between the varied duty ratios. The control device detects an abnormality in the communication by detecting that at least one of the rise and fall of the binary signal disappears.

6 Claims, 6 Drawing figures

Previous Doc Next Doc Go to Doc#

L6: Entry 6 of 9 File: USPT Dec 21, 1999

DOCUMENT-IDENTIFIER: US 6006150 A
TITLE: Communications device for control device

Detailed Description Text (26):
In step 121, the voltage of the communication line 20 is read as an input signal into the operation unit 16. Input signal "0" is formed if the voltage is at H level that exceeds a threshold level, and input signal "1" is formed if the voltage is at L level that is less than the threshold level, so that the input signal coincides with the binary, pulse signal generated by the transmitter-side operation unit 12.

Detailed Description Text (28):
When the reversal is detected, step 123 is executed to start counting 500 miliseconds, and read in the input signal at the time when 500 miliseconds elapses. At this time, too, input signal "0" is formed if the voltage of the communication line 20 is at H level that exceeds the threshold level, and input signal "1" is formed if the voltage of the line 20 is at L level that is less than the threshold level.

Detailed Description Text (40):
When the vehicle is running at a high altitude where the engine output is lowered with respect to a given throttle opening as compared with when the vehicle is running at a low altitude, the automatic transmission control unit 15 performs a shifting operation of the automatic transmission 2 by setting the oil pressure at a lower level than that selected at the low altitude, thus assuring almost the same shifting time (period of time for which the clutch is kept being partially engaged) as in the case of low-altitude vehicle running. Thus, the shifting operation can be smoothly accomplished without suffering from shift shocks that would otherwise occur due to rapid engagement of the engaging element.

Detailed Description Text (41):
Further, if the abnormality of the signal line 20 is judged with the abnormality detecting function added, the oil pressure is set at a high level for low-altitude vehicle running upon detection of the abnormality, thereby preventing the oil pressure from being set at a low level for high-altitude running while the vehicle is running at a low altitude with a large engine output, and thus avoiding a prolonged shifting time and an increased burden on the engaging element(s) of the automatic transmission 22.

First Hit Previous Doc Next Doc Go to Doc#

Generate Collection Print

L6: Entry 3 of 9 File: PGPB Dec 5, 2002

PGPUB-DOCUMENT-NUMBER: 20020183911
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20020183911 A1

TITLE: Integrated control system for vehicle

PUBLICATION-DATE: December 5, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY
Tashiro, Tsutomu	Nagoya-city		JP
Miyamoto, Noboru	Fukuoka-city		JP
Fujii, Takehito	Anjo-city		JP

APPL-NO: 10/155009 [PALM]
DATE FILED: May 28, 2002

FOREIGN-APPL-PRIORITY-DATA:

COUNTRY	APPL-NO	DOC-ID	APPL-DATE
JP	2001-161091	2001JP-2001-161091	May 29, 2001

INT-CL-PUBLISHED: [07] G06 F 17/00

US-CL-PUBLISHED: 701/48; 701/53, 701/71
US-CL-CURRENT: 701/48; 701/53, 701/71

REPRESENTATIVE-FIGURES: 1

ABSTRACT:

An integrated control system for a vehicle comprises a plurality of system device control units for controlling system devices in a vehicle, and a manager control unit for providing the system device control units with commands serving as operation directives of the system devices. A particular one of the system device control units has a hierarchical layer. If the predetermined operation should be carried out, the particular system device control unit issues a command to the particular system device as an independent operation directive for driving the particular system device to carry out the predetermined operation independently of an operation directive issued by the manager control unit.

Previous Doc Next Doc Go to Doc#

L6: Entry 3 of 9 File: PGPB Dec 5, 2002

DOCUMENT-IDENTIFIER: US 20020183911 A1
TITLE: Integrated control system for vehicle

Summary of Invention Paragraph:
[0007] When a driver changes a shift lever from the drive D range to the neutral N range in a running state of the vehicle, for example, it is not until transmission of an operation command of the shift lever to the highest level hierarchical layer that power transmission between the engine and the drive axle is turned off in accordance with the command coming from the highest level hierarchical layer. Thus, an operation cannot be taken quick in response to the operation carried out by the driver. In addition, in a vehicle equipped with a CVT (continuously variable transmission) an abnormality of an oil pressure mechanism for changing the transmission gear ratio may result in a circumstance in which the belt inadvertently slips. This is because, in this case, the highest level hierarchical layer issues a command to a lower level hierarchical layer in accordance with the abnormal condition so that a quick response operation can no longer be taken.

Detail Description Paragraph:
[0077] The processing begins with step S601 to determine whether the brake control module should secede from the hierarchical layer. Specifically, a wheel lock state is determined to exist when a brake torque exceeds a threshold value set in advance and a difference in speed between the front wheels and the rear wheels exceeds another threshold value also set in advance.

Detail Description Paragraph:
[0079] If the determination result provided at step S601 is NO indicating that the brake control module should not secede from the hierarchical layer because no wheel lock state exists, on the other hand, the processing moves to step S603 to determine whether the brake control module should secede from the hierarchical layer due to a wheel spin state. Specifically, the wheel spin state is determined to exist when the brake torque set in advance in the brake control module is equal to or smaller than a threshold value set in advance, a difference in speeds between the front wheels and the rear wheels exceeds another threshold value also set in advance and the wheel lock state is determined not to exist.

L6: Entry 4 of 9 File: USPT Oct 26, 2004

US-PAT-NO: 6810314
DOCUMENT-IDENTIFIER: US 6810314 B2

TITLE: Integrated control system for vehicle

DATE-ISSUED: October 26, 2004

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Tashiro; Tsutomu	Nagoya			JP
Miyamoto; Noboru	Fukuoka			JP
Fujii; Takehito	Anjo			JP

ASSIGNEE-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY	TYPE CODE
Denso Corporation	Kariya			JP	03

APPL-NO: 10/155009 [PALM]
DATE FILED: May 28, 2002

PARENT-CASE:
CROSS REFERENCE TO RELATED APPLICATION This application is based on and incorporates herein by reference Japanese Patent Application No. 2001-161091 filed on May 29, 2001.

FOREIGN-APPL-PRIORITY-DATA:

COUNTRY	APPL-NO	APPL-DATE
JP	2001-161091	May 29, 2001

INT-CL-ISSUED: [07] G06 F 7/00

US-CL-ISSUED: 701/48; 701/31, 701/33, 700/3, 700/20, 710/264
US-CL-CURRENT: 701/48; 700/20, 700/3, 701/31, 701/33, 710/264

FIELD-OF-CLASSIFICATION-SEARCH: 701/31, 701/34, 701/1, 701/48, 701/33, 701/51, 701/53, 701/71, 701/102, 701/36, 701/104, 701/110, 701/29, 701/32, 700/9, 700/19, 700/21, 700/27, 700/2, 700/3, 700/20, 340/3.1-3.2, 714/33-35, 714/10-13, 710/119-121, 710/241-244, 710/264, 710/110, 477/34, 477/107, 477/78, 303/112, 702/183
See application file for complete search history.

PRIOR-ART-DISCLOSED:

U.S. PATENT DOCUMENTS

	PAT-NO	ISSUE-DATE	PATENTEE-NAME	US-CL
☐	4774625	September 1988	Yamanaka	712/31
☐	5003476	March 1991	Abe	701/33
☐	5091856	February 1992	Hasegawa et al.	701/36
☐	5369584	November 1994	Kajiwara	701/48
☐	5481456	January 1996	Ogura	701/1
☐	5832397	November 1998	Yoshida et al.	701/29
☐	5957985	September 1999	Wong et al.	701/33
☐	6006143	December 1999	Bartel et al.	701/1
☐	6154688	November 2000	Dominke et al.	701/1
☐	6421593	July 2002	Kempen et al.	701/48
☐	6463373	October 2002	Suganuma et al.	701/48
☐	6466851	October 2002	Kato et al.	701/51
☐	6470252	October 2002	Tashiro et al.	701/51
☐	6553297	April 2003	Tashiro et al.	701/48
☐	6629033	September 2003	Preston et al.	701/70
☐	6654648	November 2003	Nada et al.	700/19
☐	2003/0144784	July 2003	Tashiro et al.	701/54

FOREIGN PATENT DOCUMENTS

FOREIGN-PAT-NO	PUBN-DATE	COUNTRY	CLASS
3-176239	July 1991	JP	
6-351078	December 1994	JP	

ART-UNIT: 3661

PRIMARY-EXAMINER: Louis-Jacques; Jacques H.

ATTY-AGENT-FIRM: Nixon & Vanderhye P.C.

ABSTRACT:

An integrated control system for a vehicle comprises a plurality of system device control units for controlling system devices in a vehicle, and a manager control unit for providing the system device control units with commands serving as operation directives of the system devices. A particular one of the system device control units has a hierarchical layer. If the predetermined operation should be carried out, the particular system device control unit issues a command to the particular system device as an independent operation directive for driving the particular system device to carry out the predetermined operation independently of an operation directive issued by the manager control unit.

L6: Entry 4 of 9 File: USPT Oct 26, 2004

DOCUMENT-IDENTIFIER: US 6810314 B2
TITLE: Integrated control system for vehicle

Brief Summary Text (8):
When a driver changes a shift lever from the drive D range to the neutral N range in a running state of the vehicle, for example, it is not until transmission of an operation command of the shift lever to the highest level hierarchical layer that power transmission between the engine and the drive axle is turned off in accordance with the command coming from the highest level hierarchical layer. Thus, an operation cannot be taken quick in response to the operation carried out by the driver. In addition, in a vehicle equipped with a CVT (continuously variable transmission) an abnormality of an oil pressure mechanism for changing the transmission gear ratio may result in a circumstance in which the belt inadvertently slips. This is because, in this case, the highest level hierarchical layer issues a command to a lower level hierarchical layer in accordance with the abnormal condition so that a quick response operation can no longer be taken.

Detailed Description Text (59):
The processing begins with step S601 to determine whether the brake control module should secede from the hierarchical layer. Specifically, a wheel lock state is determined to exist when a brake torque exceeds a threshold value set in advance and a difference in speed between the front wheels and the rear wheels exceeds another threshold value also set in advance.

Detailed Description Text (61):
If the determination result provided at step S601 is NO indicating that the brake control module should not secede from the hierarchical layer because no wheel lock state exists, on the other hand, the processing moves to step S603 to determine whether the brake control module should secede from the hierarchical layer due to a wheel spin state. Specifically, the wheel spin state is determined to exist when the brake torque set in advance in the brake control module is equal to or smaller than a threshold value set in advance, a difference in speeds between the front wheels and the rear wheels exceeds another threshold value also set in advance and the wheel lock state is determined not to exist.

10/676266

L6: Entry 5 of 9 File: USPT Feb 10, 2004

US-PAT-NO: 6691012
DOCUMENT-IDENTIFIER: US 6691012 B2

TITLE: Shift control apparatus for continuously variable transmission and shift control method therefor

DATE-ISSUED: February 10, 2004

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Nishida; Masayuki	Tokyo			JP
Nakayama; Jun	Tokyo			JP
Yamamoto; Mitsuo	Tokyo			JP

ASSIGNEE-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY	TYPE CODE
Fuji Jukogyo Kabushiki Kaisha	Tokyo			JP	03

APPL-NO: 10/367720 [PALM]
DATE FILED: February 19, 2003

FOREIGN-APPL-PRIORITY-DATA:

COUNTRY	APPL-NO	APPL-DATE
JP	2002-043520	February 20, 2002

INT-CL-ISSUED: [07] S16 H 55/56

US-CL-ISSUED: 701/60; 701/51, 477/46, 477/48
US-CL-CURRENT: 701/60; 477/46, 477/48; 701/51

FIELD-OF-CLASSIFICATION-SEARCH: 701/60, 701/58, 701/51, 477/36, 477/31, 477/34, 477/38, 477/44, 477/45, 477/46, 477/48, 477/49, 180/337
See application file for complete search history.

PRIOR-ART-DISCLOSED:

U.S. PATENT DOCUMENTS

Search Selected Search ALL Clear

	PAT-NO	ISSUE-DATE	PATENTEE-NAME	US-CL
☐	5928301	July 1999	Soga et al.	477/31
☐	6086507	July 2000	Luh	477/48

☐	6250077	June 2001	Iino et al.	180/338
☐	6459978	October 2002	Taniguchi et al.	701/51
☐	6547693	April 2003	Bolz et al.	477/45

ART-UNIT: 3661

PRIMARY-EXAMINER: Camby; Richard M.

ATTY-AGENT-FIRM: Smith, Gambrell & Russell LLP

ABSTRACT:

A shift control apparatus for a continuously variable transmission has a target primary pressure setting unit provided a target primary pressure according to a speed ratio deviation between an actual speed ratio and a target speed ratio; a shift control valve for regulating flow rate of hydraulic oil supplied to the primary cylinder by changing an opening area of the shift control valve according to current supplied to an electromagnetic coil; a primary pressure detecting unit; and a control unit for controlling the speed ratio by correcting a basic current set to be based upon the target primary pressure and supplied to the electromagnetic coil by feeding back the primary pressure detected by the primary pressure detecting unit, so as to have an excellent shift feeling, being able to decrease a fuel consumption by reducing the load of a pump and by quickly shifting to an optimum speed ratio.

14 Claims, 17 Drawing figures

Previous Doc Next Doc Go to Doc#

L6: Entry 5 of 9 File: USPT Feb 10, 2004

DOCUMENT-IDENTIFIER: US 6691012 B2
TITLE: Shift control apparatus for continuously variable transmission and shift control method therefor

Brief Summary Text (8):
In the first method, the oil pressure supplied in the primary oil chamber is regulated by the oil pressure control valve for a shift control, and the oil pressure in the primary oil chamber is fed back to a pilot port of the oil pressure control valve. Therefore, when a torque is unexpectedly inputted to the transmission from the wheels due to a change of road surface conditions, for example, when the vehicle runs on a rough road or a road with other friction coefficients, the oil pressure control valve is actuated by an oil pressure feedback function from the pilot port, and the hydraulic oil is caused to flow out or in the primary oil chamber. Accordingly, the speed ratio become unstable. To solve this problem, an orifice or a value is provided in a hydraulic circuit. However, providing the value deteriorates the shift response at a normal time and hence lowers an upper limit of a shifting speed.

Detailed Description Text (18):
The basic current setting unit 48 calculates the variation rate DPp0 of the target primary pressure Pp0 and sets the basic current I0 according to the variation rate DPp0. As shown in FIG. 4C, even in case either the variation rate DPp0 increases or decreases, in case the variation rate DPp0 stays within a predetermined threshold 2Da, the basic current I0 is set at the neutral current In. Then, in case the variation rate DPp0 increases to reach or exceed the threshold, the basic current I0 is set to a current Ipu which is lower than the neutral current In, whereby the inlet port 26a of the shift control valve 25 opens to allow the hydraulic oil to flow into the primary cylinder 16, and the speed ratio changes to the upshift side. On the contrary to this, in case the variation rate DPp0 decreases to lower than the threshold, the basic current is set to a current Ipd which is higher than the neutral current In, and the speed ratio changes to a downshift side. In either of the cases, the currents Ipu, Ipd change with hysteresises.

Detailed Description Text (20):
A flag FLGDi setting unit 52 shown in FIG. 2 sets a flag depending upon whether or not a speed ratio deviation .DELTA.i exceeds a predetermined threshold D.DELTA.i, and a flag FLGDp setting unit 53 sets the flag depending upon whether or not the pressure deviation .DELTA.Pp exceeds a predetermined threshold D.DELTA.Pp. Signals from the respective flag setting units 52, 53 are sent to a current renewing unit 54. Then, in case the flags are set at the respective flag setting units 52, 53 on condition that an absolute valve of the variation rate DPp0 of the target primary pressure Pp0 is smaller than a threshold Da, the setted basic current I0 is supplied to the electromagnetic coil 25c as it is without being renewed or with no feedback control of the primary pressure Pp being carried out. On the contrary to this, in other cases than the case described above, the current values I0 are renewed and the primary pressure Pp is fed.

Detailed Description Text (23):
FIG. 7 is an operating characteristics chart of the relief valve 27 which functions as the oil pressure limiting unit, which shows that the primary pressure Pp

continues to increase correspondingly to an increase in inflow pressure until an inflow pressure flowing into the inlet port 28a exceeds an upper limit value Pp limit. Then, when a pressure exceeding a predetermined upper limit value Pp limit flows into the inlet port 28a the inlet port 28a is closed by a pilot pressure to prevent an increase in the primary pressure Pp, whereby in case an actual primary pressure becomes higher than a predetermined primary pressure, the primary pressure is lowered to a proper value by the relief valve 27 as an oil pressure limiter. Consequently, there is no risk that an abnormally high pressure acts on the primary oil passage 23, the circuit being thereby protected. Furthermore, even in case the shift control valve 25 fails to stay on the open side by selecting a set value appropriately, the pulley ratio can be maintained at an intermediate ratio between the overdrive and the low.

Detailed Description Text (27):
In case the absolute value of the variation rate is determined as exceeding the threshold Da in step S2, in step S4, whether or not the variation rate DPp0 is larger than the threshold Da is determined. In case the variation rate is determined as being larger than the threshold, then step S5 is implemented to set the basic current I0 to Ipu, as shown in FIG. 4C, so as to increase the target primary pressure Pp0. On the contrary, in case the variation rate DPp0 is determined as being smaller than the threshold Da, step S6 is then implemented to set the basic current I0 to Ipd, as shown in FIG. 4c, so as to decrease the target primary pressure Pp0.

Previous Doc Next Doc Go to Doc#